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PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

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NEWS 7 APR 28 CAS patent authority coverage expanded  
NEWS 8 APR 28 ENCOMPLIT/ENCOMPLIT2 search fields enhanced  
NEWS 9 APR 28 Limits doubled for structure searching in CAS REGISTRY  
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NEWS 11 MAY 11 STN on the Web enhanced  
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NEWS 13 MAY 14 DGENE, PCTGEN and USGENE enhanced with increased limits for exact sequence match searches and introduction of free HIT display format  
NEWS 14 MAY 15 INPADOCDB and INPAFAMDB enhanced with Chinese legal status data  
NEWS 15 MAY 28 CAS databases on STN enhanced with NANO super role in records back to 1992  
NEWS 16 JUN 01 CAS REGISTRY Source of Registration (SR) searching enhanced on STN

NEWS EXPRESS MAY 26 09 CURRENT WINDOWS VERSION IS V8.4,  
AND CURRENT DISCOVER FILE IS DATED 06 APRIL 2009.

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\*\*\*\*\* STN Columbus \*\*\*\*\*

FILE 'HOME' ENTERED AT 14:13:03 ON 11 JUN 2009

=> file reg  
COST IN U.S. DOLLARS  
FULL ESTIMATED COST

SINCE FILE	TOTAL
ENTRY	SESSION
0.22	0.22

FILE 'REGISTRY' ENTERED AT 14:13:17 ON 11 JUN 2009  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
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STRUCTURE FILE UPDATES: 9 JUN 2009 HIGHEST RN 1154896-16-8  
DICTIONARY FILE UPDATES: 9 JUN 2009 HIGHEST RN 1154896-16-8

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2009.

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and  
predicted properties as well as tags indicating availability of  
experimental property data in the original document. For information  
on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=> ....Testing the current file.... screen

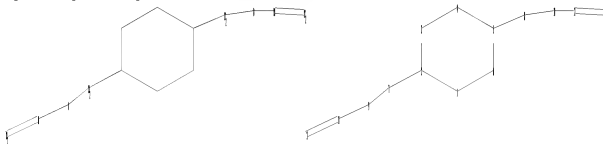
ENTER SCREEN EXPRESSION OR (END):end

=> screen 970 AND 2043

L1 SCREEN CREATED

=>

Uploading C:\Program Files\STNEXP\Queries\10560815-1.str



chain nodes :  
7 8 9 10 11 12 13 14  
ring nodes :  
1 2 3 4 5 6  
chain bonds :  
2-7 5-8 7-9 8-10 9-11 10-12 11-13 12-14  
ring bonds :  
1-2 1-6 2-3 3-4 4-5 5-6

exact/norm bonds :  
 9-11 10-12  
 exact bonds :  
 1-2 1-6 2-3 2-7 3-4 4-5 5-6 5-8 7-9 8-10 11-13 12-14  
 isolated ring systems :  
 containing 1 :

Match level :  
 1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS  
 11:CLASS 12:CLASS 13:CLASS 14:CLASS

L2 STRUCTURE UPLOADED

=> que L2 AND L1

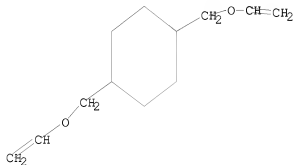
L3 QUE L2 AND L1

=> d l3

L3 HAS NO ANSWERS

L1 SCR 970 AND 2043

L2 STR



Structure attributes must be viewed using STN Express query preparation.  
 L3 QUE L2 AND L1

=> s l1 sss full

FULL SEARCH INITIATED 14:14:48 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED

494348 ANSWERS

SEARCH TIME: 00.00.01

L4 494348 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

186.84

187.06

FILE 'CAPLUS' ENTERED AT 14:15:00 ON 11 JUN 2009

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FILE COVERS 1907 - 11 Jun 2009 VOL 150 ISS 24  
FILE LAST UPDATED: 10 Jun 2009 (20090610/ED)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2009  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2009

CAPLUS now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> l4 and (cure or curing or cured or crosslink or crosslinking or crosslinked) and phenol

L4 IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.

For a list of commands available to you in the current file, enter "HELP COMMANDS" at an arrow prompt (=>).

=> s l4 and (cure or curing or cured or crosslink or crosslinking or crosslinked) and (phenol OR "Phenols")

TOO MANY TERMS FOR FILE CROSSOVER IN L4

There are limits on the size of an answer set being crossed over from one file to another. Enter HELP CROSSOVER at an arrow prompt (=>) for specific information.

=> s l4 and curing and phenol

TOO MANY TERMS FOR FILE CROSSOVER IN L4

There are limits on the size of an answer set being crossed over from one file to another. Enter HELP CROSSOVER at an arrow prompt (=>) for specific information.

=> help crossover

The term 'file crossover' refers to the use of an answer set L-number created by a search in one file as a search term or profile in another file. There are four types of crossovers in CAPLUS: query crossover, accession number crossover, crossover from the Registry File, and crossover of extracted terms.

The query is searched in CAPLUS when you search the L-number answer set created in another file, except for CASREACT, MARPAT, and Registry.

Accession numbers are crossed over when you search an L-number answer set from CASREACT, or MARPAT in CAPLUS or when you search an L-number answer set from CAPLUS in MARPAT.

You may use the CAS Registry Numbers(R) that are answers from a

search in the REGISTRY File as a search term or profile in the Capius File, without looking at all the answers or entering the Registry Numbers individually. To do this, enter the L-number of the REGISTRY answer set in a SEARCH command in Capius. You may use this L-number in any search where you might use a Registry Number, i.e., combined with other terms using the logical operators or the (L) operator. Registry Numbers crossed over from the REGISTRY File include all deleted (DR), replacing (RR), preferred (PR) and alternate (AR) numbers.

CAS Registry Numbers appended by D or DP are automatically searched whenever CAS Registry Numbers are crossed over. The suffix D indicates a generic or unspecified derivative, and DP indicates the preparation of generic derivatives. If you do not want to search CAS Registry Numbers for nonspecific derivatives, append the crossover L-number with /RN.

Examples (where L3 is an answer set from the REGISTRY File):

Search term	Retrieves
=> S L3	All CAS Registry numbers, including those appended with D or DP
=> S L3/RN	All CAS Registry Numbers, excluding those appended with D or DP

Additionally, the REGISTRY File answer set may be qualified by a code for a CAS Role. Enter HELP ROLES at an arrow prompt (=>) in this file to obtain a list of role codes and their definitions.

Example of a search for Registry Numbers with the role code ANT for the role of "analyte" (where L3 is an answer set from the REGISTRY File):

=> S L3/ANT

There is a limit of 300,000 answers for a single crossover of CAS Registry Numbers. For information on how to transfer more than 300,000 CAS Registry Numbers from the REGISTRY File, enter HELP CROSSOVER at an arrow prompt in REGISTRY.

You may also crossover and search a set of terms extracted from an answer set.

=> sl4 and phosphorus  
SL4 IS NOT A RECOGNIZED COMMAND  
The previous command name entered was not recognized by the system.  
For a list of commands available to you in the current file, enter "HELP COMMANDS" at an arrow prompt (=>).

=> s l4 and phosphorus  
TOO MANY TERMS FOR FILE CROSSOVER IN L4  
There are limits on the size of an answer set being crossed over from one file to another. Enter HELP CROSSOVER at an arrow prompt (=>) for specific information.

=> s l4  
TOO MANY TERMS FOR FILE CROSSOVER IN L4  
There are limits on the size of an answer set being crossed over from

one file to another. Enter HELP CROSSOVER at an arrow prompt (=>) for specific information.

=> file reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

3.00

190.06

FILE 'REGISTRY' ENTERED AT 14:18:52 ON 11 JUN 2009

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STRUCTURE FILE UPDATES: 9 JUN 2009 HIGHEST RN 1154896-16-8

DICTIONARY FILE UPDATES: 9 JUN 2009 HIGHEST RN 1154896-16-8

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2009.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=> s l3 exact sam

SAMPLE SEARCH INITIATED 14:19:14 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 0 TO ITERATE

100.0% PROCESSED

0 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 0 TO 0

PROJECTED ANSWERS: 0 TO 0

L5 0 SEA EXA SAM L2 AND L1

=> ....Testing the current file.... screen

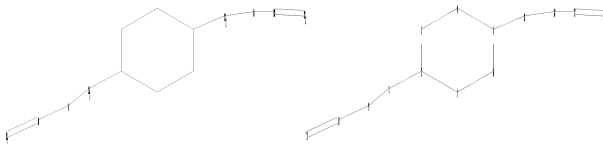
ENTER SCREEN EXPRESSION OR (END):end

=> screen 970 AND 2043

L6 SCREEN CREATED

=>

Uploading C:\Program Files\STNEXP\Queries\10560815-1.str



```

chain nodes :
7  8  9 10 11 12 13 14
ring nodes :
1  2  3  4  5  6
chain bonds :
2-7  5-8  7-9  8-10  9-11 10-12 11-13 12-14
ring bonds :
1-2  1-6  2-3  3-4  4-5  5-6
exact/norm bonds :
9-11 10-12
exact bonds :
1-2  1-6  2-3  2-7  3-4  4-5  5-6  5-8  7-9  8-10 11-13 12-14
isolated ring systems :
containing 1 :

```

```

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS
11:CLASS 12:CLASS 13:CLASS 14:CLASS

```

L7        STRUCTURE UPLOADED

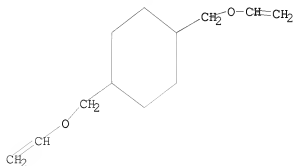
=> que L7 AND L6

L8    QUE L7 AND L6

=> d l7

L7 HAS NO ANSWERS

L7                    STR



Structure attributes must be viewed using STN Express query preparation.

=> s l7 exact sam  
SAMPLE SEARCH INITIATED 14:19:49 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 1 TO ITERATE

100.0% PROCESSED 1 ITERATIONS 0 ANSWERS  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 1 TO 80  
PROJECTED ANSWERS: 0 TO 0

L9 0 SEA EXA SAM L7

=> s l7 exact full  
FULL SEARCH INITIATED 14:19:58 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 8 TO ITERATE

100.0% PROCESSED 8 ITERATIONS 2 ANSWERS  
SEARCH TIME: 00.00.01

L10 2 SEA EXA FUL L7

=> file caplus  
COST IN U.S. DOLLARS SINCE FILE TOTAL  
ENTRY SESSION  
FULL ESTIMATED COST 63.56 253.62

FILE 'CAPLUS' ENTERED AT 14:20:10 ON 11 JUN 2009  
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FILE COVERS 1907 - 11 Jun 2009 VOL 150 ISS 24  
FILE LAST UPDATED: 10 Jun 2009 (20090610/ED)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2009  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2009

Caplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l10  
L11 196 L10



```
=> s l10 and (curing or cured or crosslinked or crosslinking)
      196 L10
      145626 CURING
      125234 CURED
      121654 CROSSLINKED
      225698 CROSSLINKING
L12      110 L10 AND (CURING OR CURED OR CROSSLINKED OR CROSSLINKING)
```

```
=> l12 and phenol
L12 IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).
```

```
=> s l12 and phenol
      273344 PHENOL
L13      6 L12 AND PHENOL
```

```
=> DIS L13 1 HIT IBIB IABS
```

```
L13 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN
AB The sheets with average birefringence in the thickness direction  $\leq 5$ 
+ 10-5 and deviation from measured average birefringence in the same
plane -50 to +50% comprise (A) transparent thermoplastic resin sheets and
(B) on at least one surface of A thin coating layers of cured
polymers via adhesive layers. Thus, applying a coating containing 10 parts
diethylene glycol dimethacrylate and 20 parts HMDI carbamate with
pentaerythritol triacrylate on a PET polymer film, forming a middle layer
containing alicyclic epoxy compound (Celloxide 2021), 1,4-cyclohexanedimethanol
divinyl ether, and phenol novolak epoxy resin, further applying
an acrylic adhesive to give a transfer film, thermocompression-bonding
with an acrylic polymer sheet (Delpet 70H), and removing the PET film gave
a laminate showing light transmittance 92%, surface hardness (JIS K 5400)
5H, surface resistivity (JIS K 6911)  $>10^{16} \Omega$ , surface reflection in
visible light range 7%, and maximum and min. deviation from average
birefringence
```

```
+16 and -10%, resp., and good interlayer adhesion.
IT 17351-75-6, 1,4-Cyclohexanedimethanol divinyl ether 25085-98-7,
Celloxide 2021
RL: TEM (Technical or engineered material use); USES (Uses)
(middle layers containing; surface-modified thermoplastic resin composite
sheets with good transparency and scratch resistance)
```

```
ACCESSION NUMBER: 2005:632228 CAPLUS
DOCUMENT NUMBER: 143:134448
TITLE: Surface-modified thermoplastic resin composite sheets
with good transparency and scratch resistance
INVENTOR(S): Hirano, Hiroyuki
PATENT ASSIGNEE(S): Asahi Kasei Chemicals Corporation, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
```

```
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
```

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	---	-----	-----	-----
JP 2005193514	A	20050721	JP 2004-1900	20040107
PRIORITY APPLN. INFO.:			JP 2004-1900	20040107

ABSTRACT:

The sheets with average birefringence in the thickness direction  $\leq 5$  +

10-5 and deviation from measured average birefringence in the same plane -50 to +50% comprise (A) transparent thermoplastic resin sheets and (B) on at least one surface of A thin coating layers of cured polymers via adhesive layers. Thus, applying a coating containing 10 parts diethylene glycol dimethacrylate and 20 parts HMDI carbamate with pentaerythritol triacrylate on a PET polymer film, forming a middle layer containing alicyclic epoxy compound (Celloxide 2021), 1,4-cyclohexanedimethanol divinyl ether, and phenol novolak epoxy resin, further applying an acrylic adhesive to give a transfer film, thermocompression-bonding with an acrylic polymer sheet (Delpet 70H), and removing the PET film gave a laminate showing light transmittance 92%, surface hardness (JIS K 5400) 5H, surface resistivity (JIS K 6911) >10<sup>16</sup> Ω, surface reflection in visible light range 7%, and maximum and min. deviation from average birefringence +16 and -10%, resp., and good interlayer adhesion.

=> DIS L13 2 HIT IBIB IABS

L13 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN

AB The film consists of (1) a dyed PET film substrate, (2) cation-polymerizable alicyclic epoxides on at least one side of the substrate, and (3) radical-polymerizable ionizing radiation-curable resins for forming hard coatings on the intermediate layer(s). Thus, a black PET film was primed with a solution containing Celloxide 2021 (alicyclic epoxide), 1,4-cyclohexanedimethylol divinyl ether, phenol novolak epoxy resin, and an initiator, dried, cured, and then coated with a solution containing dipentaerythritol hexaacrylate, dried, and cured to give a coated film showing surface hardness H and good cross-cut adhesion initially and after hot water treatment.

IT 25085-98-7, Celloxide 2021

RL: POF (Polymer in formulation); PRP (Properties); RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)

(crosslinked, primer; hard-coated poly(ethylene terephthalate) film with high interlayer adhesion in hot water)

IT 17351-75-6, 1,4-Cyclohexanedimethanol divinyl ether

RL: MOA (Modifier or additive use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)

(crosslinker in primer; hard-coated poly(ethylene terephthalate) film with high interlayer adhesion in hot water)

ACCESSION NUMBER: 2001:857420 CAPLUS

DOCUMENT NUMBER: 135:372859

TITLE: Hard-coated poly(ethylene terephthalate) film with high interlayer adhesion in hot water

INVENTOR(S): Suzuki, Yuji

PATENT ASSIGNEE(S): Oike Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	---	-----	-----	-----
JP 2001328225	A	20011127	JP 2000-152545	20000524
PRIORITY APPLN. INFO.:			JP 2000-152545	20000524

ABSTRACT:

The film consists of (1) a dyed PET film substrate, (2) cation-polymerizable alicyclic epoxides on at least one side of the substrate, and (3) radical-polymerizable ionizing radiation-curable resins for forming hard coatings on the intermediate layer(s). Thus, a black PET film was primed with

a solution containing Celloxide 2021 (alicyclic epoxide), 1,4-cyclohexanedimethylol divinyl ether, phenol novolak epoxy resin, and an initiator, dried, \*\*\*cured\*\*\*, and then coated with a solution containing dipentaerythritol hexaacrylate, dried, and cured to give a coated film showing surface hardness H and good cross-cut adhesion initially and after hot water treatment.

=> DIS L13 3 HIT IBIB IABS

L13 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2009 ACS ON STN

AB Polyolefin-type film comprises polyethylene and/or polypropylene film having cationically polymerizable aliphatic epoxy compound laminated on at least one side. Thus, Celloxide 2021 75, 1,4-cyclohexane dimethylol divinyl ether 3, phenol novolak epoxy resin 15, and photo cation polymerization initiator 4 parts were coated on to a corona-treated polypropylene film, cured with high-pressure mercury lamp to give a 5  $\mu$ m-thick laminated film.

IT 17351-75-6DP, polymers with Celloxide 2021 and phenol novolak epoxy resins or urethane acrylate and epoxy acrylate 25085-98-7DP, Celloxide 2021, polymers with 1,4-cyclohexane dimethylol divinyl ether and phenol novolak epoxy resin or urethane acrylate and epoxy acrylate  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (polyolefin type film laminated material)

ACCESSION NUMBER: 2001:270289 CAPLUS  
 DOCUMENT NUMBER: 134:281907  
 TITLE: Resin laminated polyolefin-type film materials  
 INVENTOR(S): Suzuki, Yuji; Kawabata, Tsuneo  
 PATENT ASSIGNEE(S): Oike Industry Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001105548	A	20010417	JP 1999-290394	19991013
PRIORITY APPLN. INFO.:			JP 1999-290394	19991013

ABSTRACT:  
 Polyolefin-type film comprises polyethylene and/or polypropylene film having cationically polymerizable aliphatic epoxy compound laminated on at least one side. Thus, Celloxide 2021 75, 1,4-cyclohexane dimethylol divinyl ether 3, \*\*\*phenol\*\*\* novolak epoxy resin 15, and photo cation polymerization initiator 4 parts were coated on to a corona-treated polypropylene film, cured with high-pressure mercury lamp to give a 5  $\mu$ m-thick laminated film.

=> DIS L13 4 HIT IBIB IABS

L13 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2009 ACS ON STN

AB The films, having 0 permeability 1 cc/m<sup>2</sup>-atm-24 h and moisture permeability 1.0 g/m<sup>2</sup>-24 h comprise a plastic film, polymer layer mainly containing alicyclic epoxy compds., and inorg. thin films having silicon oxide, aluminum oxide, and/or Al. Thus, PET film was coated with a composition containing alicyclic epoxy resin (Celloxide 2021) 75, 1,4-cyclohexanedimethylol divinyl ether 3, and phenol novolak

epoxy resin 15 parts and laminated with SiO<sub>1.8</sub> to give a film showing O permeability 0.2 cc/m<sup>2</sup> 24 h and moisture permeability 0.3 g/m<sup>2</sup> 24 h.

IT Epoxy resins, uses  
 RL: MOA (Modifier or additive use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)  
 (phenolic, novolak, crosslinking agent; gas-barrier films for packaging materials)

IT 25085-98-7, Celloxide 2021  
 RL: POP (Polymer in formulation); PRP (Properties); RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)  
 (crosslinked; gas-barrier films for packaging materials)

IT 17351-75-6  
 RL: MOA (Modifier or additive use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)  
 (crosslinking agent; gas-barrier films for packaging materials)

ACCESSION NUMBER: 2001:38363 CAPLUS  
 DOCUMENT NUMBER: 134:87323  
 TITLE: Gas-barrier films for packaging materials  
 INVENTOR(S): Tomita, Yasuo  
 PATENT ASSIGNEE(S): Oike Industry Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
JP 2001009962	A	20010116	JP 1999-188633	19990702
PRIORITY APPLN. INFO.:			JP 1999-188633	19990702

ABSTRACT:

The films, having O permeability 1 cc/m<sup>2</sup>-atm-24 h and moisture permeability 1.0 g/m<sup>2</sup>-24 h comprise a plastic film, polymer layer mainly containing alicyclic epoxy compds., and inorg. thin films having silicon oxide, aluminum oxide, and/or Al. Thus, PET film was coated with a composition containing alicyclic epoxy resin (Celloxide 2021) 75, 1,4-cyclohexanedimethylol divinyl ether 3, and phenol novolak epoxy resin 15 parts and laminated with SiO<sub>1.8</sub> to give a film showing O permeability 0.2 cc/m<sup>2</sup> 24 h and moisture permeability 0.3 g/m<sup>2</sup> 24 h.

=> DIS L13 5 HIT IBIB IABS

L13 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN

AB The title photohardenable composition comprises the title dyes which absorb light at >350 nm, a photohardenable resin selected from epoxy compds., vinyl ethers, vinyl ether functional prepolymers, cyclic ethers, cyclic esters, cyclic sulfides, melamine-formaldehyde, phenol -formaldehyde, cyclic organosiloxanes, lactams, lactones, cyclic acetals, and epoxy functional silicone oligomers, and an onium salt catalyst such as iodonium salts, thiapyrylium salts, diazonium salts and ferrocenium salts. A cycloaliph. diepoxide and polyol were cured in the presence of 0.4% 5,7-diiodo-3-methoxy-6-fluorone and co-initiator.

IT Crosslinking catalysts  
 (photochem.; fluorone or xanthene fluorester or photoinitiator for photohardenable compns.)

IT 286-20-4, Cyclohexene oxide 17351-75-6,  
 1,4-Cyclohexane-dimethanol divinyl ether

RL: TEM (Technical or engineered material use); USES (Uses)  
(fluorone or xanthene fluoescer or photoinitiator for photohardenable  
comps.)

ACCESSION NUMBER: 1997:411079 CAPLUS  
DOCUMENT NUMBER: 127:96075  
ORIGINAL REFERENCE NO.: 127:18501a,18504a  
TITLE: Fluorone or xanthene fluoescer or photoinitiator for  
photohardenable compositions  
INVENTOR(S): Neckers, Douglas C.; Bi, Yubai  
PATENT ASSIGNEE(S): Spectra Group Limited, Inc., USA  
SOURCE: U.S., 13 pp., Cont.-in-part of U.S. Ser. No. 881,048,  
abandoned.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 5  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5639802	A	19970617	US 1993-156453	19931123
WO 9514716	A1	19950601	WO 1994-US726	19940118
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 738285	A1	19961023	EP 1994-917248	19940118
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 09509437	T	19970922	JP 1994-515033	19940118
PRIORITY APPLN. INFO.:			US 1991-702886	B2 19910520
			US 1991-756611	B2 19910909
			US 1991-772103	B2 19911007
			US 1992-881048	B2 19920511
			US 1993-156453	A 19931123
			WO 1994-US726	W 19940118

OTHER SOURCE(S): MARPAT 127:96075

ABSTRACT:

The title photohardenable composition comprises the title dyes which absorb light at >350 nm, a photohardenable resin selected from epoxy compds., vinyl ethers, vinyl ether functional prepolymers, cyclic ethers, cyclic esters, cyclic sulfides, melamine-formaldehyde, phenol-formaldehyde, cyclic organosiloxanes, lactams, lactones, cyclic acetals, and epoxy functional silicone oligomers, and an onium salt catalyst such as iodonium salts, thiaprylium salts, diazonium salts and ferrocenium salts. A cycloaliph. diepoxide and polyol were cured in the presence of 0.4% 5,7-diiodo-3-methoxy-6-fluorone and co-initiator.

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> DIS L13 6 HIT IBIB IABS

L13 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN

AB Ceramic or metal flat articles are bonded by application of thermally and UV hardenable adhesives containing 30-90% highly functional aromatic epoxides, 5-50% cycloaliph. mono- or divinyl ethers, 0-25% aromatic bisphenol diglycidyl ethers, a latent thermal initiator, and a cation-liberating UV initiator to the surfaces, fixing the articles in place using UV light, and then thermally hardening the adhesives. The cured joints exhibit good heat resistance and high shear strength, and the adhesives exhibit good storage stability.  
IT 9003-35-4D, Formaldehyde-phenol copolymer, epoxidized  
63957-64-2, DEN 438 65581-98-8, Araldite PY306

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
 (bonding flat ceramic and metal articles thermally-photochem. curable adhesives)

IT 17351-75-6, 1,4-Cyclohexanedimethyl divinyl ether  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (bonding flat ceramic and metal articles thermally-photochem. curable adhesives)

ACCESSION NUMBER: 1997:374650 CAPLUS  
 DOCUMENT NUMBER: 126:344314  
 ORIGINAL REFERENCE NO.: 126:66955a,66958a  
 TITLE: Bonding flat articles thermally-photochemically curable adhesives  
 INVENTOR(S): Bayer, Heiner; Plundrich, Winfried; Wipfelder, Ernst; Zapf, Lothar  
 PATENT ASSIGNEE(S): Siemens A.-G., Germany  
 SOURCE: Ger. Offen., 7 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19538468	A1	19970417	DE 1995-19538468	19951016
DE 19538468	B4	20071011		
PRIORITY APPLN. INFO.:			DE 1995-19538468	19951016

ABSTRACT:  
 Ceramic or metal flat articles are bonded by application of thermally and UV hardenable adhesives containing 30-90% highly functional aromatic epoxides, 5-50% cycloaliph. mono- or divinyl ethers, 0-25% aromatic bisphenol diglycidyl ethers, a latent thermal initiator, and a cation-liberating UV initiator to the surfaces, fixing the articles in place using UV light, and then thermally hardening the adhesives. The cured joints exhibit good heat resistance and high shear strength, and the adhesives exhibit good storage stability.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d his

(FILE 'HOME' ENTERED AT 14:13:03 ON 11 JUN 2009)

FILE 'REGISTRY' ENTERED AT 14:13:17 ON 11 JUN 2009

L1 SCREEN 970 AND 2043  
 L2 STRUCTURE UPLOADED  
 L3 QUE L2 AND L1  
 L4 494348 S L1 SSS FULL

FILE 'CAPLUS' ENTERED AT 14:15:00 ON 11 JUN 2009  
 E CURING+ALL/CT  
 E PHENOL+ALL/CT

FILE 'REGISTRY' ENTERED AT 14:18:52 ON 11 JUN 2009

L5 0 S L3 EXACT SAM  
 L6 SCREEN 970 AND 2043  
 L7 STRUCTURE UPLOADED  
 L8 QUE L7 AND L6  
 L9 0 S L7 EXACT SAM  
 L10 2 S L7 EXACT FULL

FILE 'CAPLUS' ENTERED AT 14:20:10 ON 11 JUN 2009  
L11 196 S L10  
L12 110 S L10 AND (CURING OR CURED OR CROSSLINKED OR CROSSLINKING)  
L13 6 S L12 AND PHENOL

=> logoff hold

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	35.48	289.10
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-4.92	-4.92

SESSION WILL BE HELD FOR 120 MINUTES  
STN INTERNATIONAL SESSION SUSPENDED AT 14:24:57 ON 11 JUN 2009  
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PASSWORD:

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NEWS 2 DEC 01 ChemPort single article sales feature unavailable  
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NEWS 6 APR 26 USPATFULL and USPAT2 enhanced with patent assignment/reassignment information  
NEWS 7 APR 28 CAS patent authority coverage expanded  
NEWS 8 APR 28 ENCOMPLIT/ENCOMPLIT2 search fields enhanced  
NEWS 9 APR 28 Limits doubled for structure searching in CAS REGISTRY  
NEWS 10 MAY 08 STN Express, Version 8.4, now available  
NEWS 11 MAY 11 STN on the Web enhanced  
NEWS 12 MAY 11 BEILSTEIN substance information now available on STN Easy  
NEWS 13 MAY 14 DGENE, PCTGEN and USGENE enhanced with increased limits for exact sequence match searches and introduction of free HIT display format  
NEWS 14 MAY 15 INPADOCDB and INPAFAMDB enhanced with Chinese legal status data  
NEWS 15 MAY 28 CAS databases on STN enhanced with NANO super role in records back to 1992  
NEWS 16 JUN 01 CAS REGISTRY Source of Registration (SR) searching enhanced on STN

NEWS EXPRESS MAY 26 09 CURRENT WINDOWS VERSION IS V8.4,  
AND CURRENT DISCOVER FILE IS DATED 06 APRIL 2009.

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FILE 'HOME' ENTERED AT 07:49:23 ON 15 JUN 2009

=> file reg		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.22	0.22

FILE 'REGISTRY' ENTERED AT 07:49:43 ON 15 JUN 2009  
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STRUCTURE FILE UPDATES: 14 JUN 2009 HIGHEST RN 1157585-76-6  
DICTIONARY FILE UPDATES: 14 JUN 2009 HIGHEST RN 1157585-76-6

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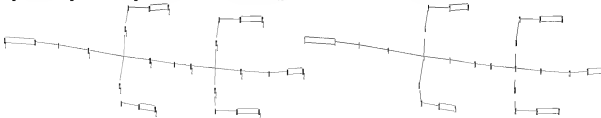
TSCA INFORMATION NOW CURRENT THROUGH January 9, 2009.

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REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

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=>  
Uploading C:\Program Files\STNEXP\Queries\10560815-3.str





```

chain nodes :
1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23
24 25 26 27 28 29
chain bonds :
1-2  2-3  3-4  4-5  5-6  5-7  5-8  6-9  7-10  8-11  9-12  10-16  11-13  12-14
13-15  16-17  17-18  17-19  17-20  18-21  19-23  20-22  21-24  22-25  23-28  24-26
25-27  28-29
exact/norm bonds :
2-3  9-12  11-13  21-24  22-25  23-28
exact bonds :
1-2  3-4  4-5  5-6  5-7  5-8  6-9  7-10  8-11  10-16  12-14  13-15  16-17  17-18
17-19  17-20  18-21  19-23  20-22  24-26  25-27  28-29

```

```

Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS
10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS
18:CLASS 19:CLASS 20:CLASS 21:CLASS 22:CLASS 23:CLASS 24:CLASS 25:CLASS
26:CLASS 27:CLASS 28:CLASS 29:CLASS

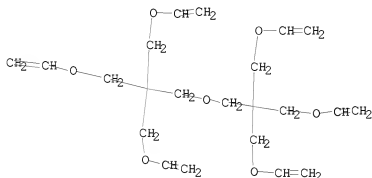
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L1        STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1                STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1 exact sam

SAMPLE SEARCH INITIATED 07:50:12 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED -                0 TO ITERATE

100.0% PROCESSED

0 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.02

FULL FILE PROJECTIONS:    ONLINE    \*\*COMPLETE\*\*

BATCH    \*\*COMPLETE\*\*

PROJECTED ITERATIONS:                0 TO                0

PROJECTED ANSWERS:                    0 TO                0

L2                0 SEA EXA SAM L1

=> s l1 sss sam

SAMPLE SEARCH INITIATED 07:50:33 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 479 TO ITERATE

100.0% PROCESSED 479 ITERATIONS 0 ANSWERS  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 8267 TO 10893  
PROJECTED ANSWERS: 0 TO 0

L3 0 SEA SSS SAM L1

=> s l1 exact full  
FULL SEARCH INITIATED 07:50:43 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 5 TO ITERATE

100.0% PROCESSED 5 ITERATIONS 1 ANSWERS  
SEARCH TIME: 00.00.01

L4 1 SEA EXA FUL L1

=> DIS L4 1 RN SAM  
'SAM' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'

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Substance information can be displayed by requesting individual fields or predefined formats. The predefined substance formats are: (RN = CAS Registry Number)

REG - RN  
SAM - Index Name, MF, and structure - no RN  
FIDE - All substance data, except sequence data  
IDE - FIDE, but only 50 names  
SQIDE - IDE, plus sequence data  
SQIDE3 - Same as SQIDE, but 3-letter amino acid codes are used  
SQD - Protein sequence data, includes RN  
SQD3 - Same as SQD, but 3-letter amino acid codes are used  
SQN - Protein sequence name information, includes RN

EPROP - Table of experimental properties  
PPROP - Table of predicted properties  
PROP - EPROP, ETAG, PPROP and SPEC

Any CA File format may be combined with any substance format to obtain CA references citing the substance. The substance formats must be cited first. The CA File predefined formats are:

ABS -- Abstract  
APPS -- Application and Priority Information  
BIB -- CA Accession Number, plus Bibliographic Data  
CAN -- CA Accession Number  
CBIB -- CA Accession Number, plus Bibliographic Data (compressed)  
IND -- Index Data  
IPC -- International Patent Classification  
PATS -- PI, SO  
STD -- BIB, IPC, and NCL  
  
IABS -- ABS, indented, with text labels  
IBIB -- BIB, indented, with text labels  
ISTD -- STD format, indented

OBIB ----- AN, plus Bibliographic Data (original)  
OIBIB ----- OBIB, indented with text labels

SBIB ----- BIB, no citations  
SIBIB ----- IBIB, no citations

The ALL format gives FIDE BIB ABS IND RE, plus sequence data when it is available.

The MAX format is the same as ALL.

The IALL format is the same as ALL with BIB ABS and IND indented, with text labels.

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HELP FORMATS -- To see detailed descriptions of the predefined formats.  
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=> file caplus  
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
64.04	64.26

FULL ESTIMATED COST

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FILE COVERS 1907 - 15 Jun 2009 VOL 150 ISS 25  
FILE LAST UPDATED: 14 Jun 2009 (20090614/ED)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2009  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2009

Caplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

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=> s l4 and novolac  
1 L4  
2608 NOVOLAC  
L5 0 L4 AND NOVOLAC

=> s l4

L6

1 L4

=&gt; DIS L6 1 HIT IBIB IABS

L6 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2009 ACS on STN  
 IT 767-11-3, 7-Oxabicyclo[4.1.0]heptane-3-methanol 3001-61-4 5380-87-0,  
 Furfuryl glycidyl ether 17464-88-9 41440-39-5 65952-06-9  
 112288-39-8 830351-50-3

RL: TEM (Technical or engineered material use); USES (Uses)  
 (pos. resist composition and patterning method)

ACCESSION NUMBER: 2005:323286 CAPLUS  
 DOCUMENT NUMBER: 142:382188  
 TITLE: Positive resist composition and patterning method  
 INVENTOR(S): Takahashi, Akira; Sato, Kenichiro  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 80 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	---	-----	-----	-----
JP 2005099275	A	20050414	JP 2003-331455	20030924
PRIORITY APPLN. INFO.:			JP 2003-331455	20030924

## ABSTRACT:

Title photoresist composition comprises (A) a resin component having specific repeating unit structure and having an increased solubility in alkali development liquid in the presence of an acid, (B) a radiation-sensitive acid generator, (C) a compound with a specific structure, and (D) solvents. A method of patterning using the photoresist composition is also claimed.

=&gt; d his

(FILE 'HOME' ENTERED AT 07:49:23 ON 15 JUN 2009)

FILE 'REGISTRY' ENTERED AT 07:49:43 ON 15 JUN 2009

L1 STRUCTURE UPLOADED  
 L2 0 S L1 EXACT SAM  
 L3 0 S L1 SSS SAM  
 L4 1 S L1 EXACT FULL

FILE 'CAPLUS' ENTERED AT 07:51:46 ON 15 JUN 2009

E NOVOLAC+ALL/CT  
 L5 0 S L4 AND NOVOLAC  
 L6 1 S L4

=&gt; logoff hold

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	7.12	71.38
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-0.82	-0.82

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PASSWORD:

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	ENTRY	SESSION
FULL ESTIMATED COST	7.12	71.38
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-0.82	-0.82

=> d his

(FILE 'HOME' ENTERED AT 07:49:23 ON 15 JUN 2009)

FILE 'REGISTRY' ENTERED AT 07:49:43 ON 15 JUN 2009

L1	STRUCTURE UPLOADED
L2	0 S L1 EXACT SAM
L3	0 S L1 SSS SAM
L4	1 S L1 EXACT FULL

FILE 'CAPLUS' ENTERED AT 07:51:46 ON 15 JUN 2009

	E NOVOLAC+ALL/CT
L5	0 S L4 AND NOVOLAC
L6	1 S L4

=> file reg

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	7.62	71.88
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-0.82	-0.82

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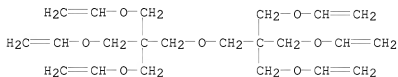
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=> DIS L4 1 FIDE

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L4 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2009 ACS on STN  
RN 830351-50-3 REGISTRY  
ED Entered STN: 14 Feb 2005  
CN Propane, 1-(ethenyloxy)-3-[3-(ethenyloxy)-2,2-bis[(ethenyloxy)methyl]propoxy]-2,2-bis[(ethenyloxy)methyl]- (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN Propane, 1,1'-oxybis[3-(ethenyloxy)-2,2-bis[(ethenyloxy)methyl]- (9CI)  
MF C22 H34 O7  
CI COM  
SR CA  
LC STN Files: CA, CAPLUS  
DT.CA CAPLUS document type: Patent  
RL.P Roles from patents: USES (Uses)



# Predicted Properties (PPROP)

PROPERTY (CODE)	VALUE	CONDITION	NOTE
Bioconc. Factor (BCF)	1279.09	pH 1 25 deg C	1(1)
Bioconc. Factor (BCF)	1279.09	pH 2 25 deg C	1(1)
Bioconc. Factor (BCF)	1279.09	pH 3 25 deg C	1(1)
Bioconc. Factor (BCF)	1279.09	pH 4 25 deg C	1(1)
Bioconc. Factor (BCF)	1279.09	pH 5 25 deg C	1(1)
Bioconc. Factor (BCF)	1279.09	pH 6 25 deg C	1(1)
Bioconc. Factor (BCF)	1279.09	pH 7 25 deg C	1(1)
Bioconc. Factor (BCF)	1279.09	pH 8 25 deg C	1(1)
Bioconc. Factor (BCF)	1279.09	pH 9 25 deg C	1(1)
Bioconc. Factor (BCF)	1279.09	pH 10 25 deg C	1(1)
Boiling Point (BP)	1396.8+/-42.0 deg C	1760 Torr	1(1)
Density (DEN)	1.008+/-0.06 g/cm**3	120 deg C	1(1)
		1760 Torr	
Enthalpy of Vap. (HVAP)	162.19+/-3.0 kJ/mol	1760 Torr	1(1)
Flash Point (FP)	141.2+/-27.8 deg C		1(1)
Freely Rotatable Bonds (FRB)	22		1(1)
H acceptors (HAC)	17		1(1)
H donors (HD)	10		1(1)

Hydrogen Donors/Acceptors Sum/7				(1)
(HDAS)				
Koc (KOC)	1960.04	pH 1 25 deg C	(1)	
Koc (KOC)	1960.04	pH 2 25 deg C	(1)	
Koc (KOC)	1960.04	pH 3 25 deg C	(1)	
Koc (KOC)	1960.04	pH 4 25 deg C	(1)	
Koc (KOC)	1960.04	pH 5 25 deg C	(1)	
Koc (KOC)	1960.04	pH 6 25 deg C	(1)	
Koc (KOC)	1960.04	pH 7 25 deg C	(1)	
Koc (KOC)	1960.04	pH 8 25 deg C	(1)	
Koc (KOC)	1960.04	pH 9 25 deg C	(1)	
Koc (KOC)	1960.04	pH 10 25 deg C	(1)	
LOGD (LOGD)	3.52	pH 1 25 deg C	(1)	
LOGD (LOGD)	3.52	pH 2 25 deg C	(1)	
LOGD (LOGD)	3.52	pH 3 25 deg C	(1)	
LOGD (LOGD)	3.52	pH 4 25 deg C	(1)	
LOGD (LOGD)	3.52	pH 5 25 deg C	(1)	
LOGD (LOGD)	3.52	pH 6 25 deg C	(1)	
LOGD (LOGD)	3.52	pH 7 25 deg C	(1)	
LOGD (LOGD)	3.52	pH 8 25 deg C	(1)	
LOGD (LOGD)	3.52	pH 9 25 deg C	(1)	
LOGD (LOGD)	3.52	pH 10 25 deg C	(1)	
LOGP (LOGP)	3.521+/-0.774	25 deg C	(1)	
Mass Intrinsic Solubility	3.7 g/L	25 deg C	(1)	
(ISLB.MASS)				
Mass Solubility (SLB.MASS)	3.7 g/L	pH 1 25 deg C	(1)	
Mass Solubility (SLB.MASS)	3.7 g/L	pH 2 25 deg C	(1)	
Mass Solubility (SLB.MASS)	3.7 g/L	pH 3 25 deg C	(1)	
Mass Solubility (SLB.MASS)	3.7 g/L	pH 4 25 deg C	(1)	
Mass Solubility (SLB.MASS)	3.7 g/L	pH 5 25 deg C	(1)	
Mass Solubility (SLB.MASS)	3.7 g/L	pH 6 25 deg C	(1)	
Mass Solubility (SLB.MASS)	3.7 g/L	pH 7 25 deg C	(1)	
Mass Solubility (SLB.MASS)	3.7 g/L	pH 8 25 deg C	(1)	
Mass Solubility (SLB.MASS)	3.7 g/L	pH 9 25 deg C	(1)	
Mass Solubility (SLB.MASS)	3.7 g/L	pH 10 25 deg C	(1)	
Mass Solubility (SLB.MASS)	3.7 g/L	Unbuffered Water	(1)	
		pH 7.00		
		25 deg C		
Molar Intrinsic Solubility	0.0091 mol/L	25 deg C	(1)	
(ISLB.MOL)				
Molar Solubility (SLB.MOL)	0.0091 mol/L	pH 1 25 deg C	(1)	
Molar Solubility (SLB.MOL)	0.0091 mol/L	pH 2 25 deg C	(1)	
Molar Solubility (SLB.MOL)	0.0091 mol/L	pH 3 25 deg C	(1)	
Molar Solubility (SLB.MOL)	0.0091 mol/L	pH 4 25 deg C	(1)	
Molar Solubility (SLB.MOL)	0.0091 mol/L	pH 5 25 deg C	(1)	
Molar Solubility (SLB.MOL)	0.0091 mol/L	pH 6 25 deg C	(1)	
Molar Solubility (SLB.MOL)	0.0091 mol/L	pH 7 25 deg C	(1)	
Molar Solubility (SLB.MOL)	0.0091 mol/L	pH 8 25 deg C	(1)	
Molar Solubility (SLB.MOL)	0.0091 mol/L	pH 9 25 deg C	(1)	
Molar Solubility (SLB.MOL)	0.0091 mol/L	pH 10 25 deg C	(1)	
Molar Solubility (SLB.MOL)	0.0091 mol/L	Unbuffered Water	(1)	
		pH 7.00		
		25 deg C		
Molar Volume (MVOL)	406.8+/-3.0 cm**3/mol	20 deg C	(1)	
		760 Torr		
Molecular Weight (MW)	410.50		(1)	
Polar Surface Area (PSA)	64.61 A**2		(1)	
Vapor Pressure (VP)	3.81E-06 Torr	25 deg C	(1)	

(1) Calculated using Advanced Chemistry Development (ACD/Labs) Software V9.04  
((C) 1994-2009 ACD/Labs)

See HELP PROPERTIES for information about property data sources in REGISTRY.  
1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> d his

(FILE 'HOME' ENTERED AT 07:49:23 ON 15 JUN 2009)

FILE 'REGISTRY' ENTERED AT 07:49:43 ON 15 JUN 2009

L1 STRUCTURE UPLOADED  
L2 0 S L1 EXACT SAM  
L3 0 S L1 SSS SAM  
L4 1 S L1 EXACT FULL

FILE 'CAPLUS' ENTERED AT 07:51:46 ON 15 JUN 2009

E NOVOLAC+ALL/CT  
L5 0 S L4 AND NOVOLAC  
L6 1 S L4

FILE 'REGISTRY' ENTERED AT 07:58:35 ON 15 JUN 2009

=> logoff hold

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	4.31	76.19

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-0.82

SESSION WILL BE HELD FOR 120 MINUTES  
STN INTERNATIONAL SESSION SUSPENDED AT 07:59:44 ON 15 JUN 2009  
Connecting via Winsock to STN

Welcome to STN International! Enter x:X

LOGINID:SSPTAJEU1796

PASSWORD:

\* \* \* \* \* RECONNECTED TO STN INTERNATIONAL \* \* \* \* \*  
SESSION RESUMED IN FILE 'REGISTRY' AT 08:12:03 ON 15 JUN 2009  
FILE 'REGISTRY' ENTERED AT 08:12:03 ON 15 JUN 2009  
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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	4.31	76.19

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-0.82

=> d his

(FILE 'HOME' ENTERED AT 07:49:23 ON 15 JUN 2009)



FILE 'REGISTRY' ENTERED AT 07:49:43 ON 15 JUN 2009  
L1 STRUCTURE UPLOADED  
L2 0 S L1 EXACT SAM  
L3 0 S L1 SSS SAM  
L4 1 S L1 EXACT FULL

FILE 'CAPLUS' ENTERED AT 07:51:46 ON 15 JUN 2009  
E NOVOLAC+ALL/CT  
L5 0 S L4 AND NOVOLAC  
L6 1 S L4

FILE 'REGISTRY' ENTERED AT 07:58:35 ON 15 JUN 2009

=> file reg	SINCE FILE	TOTAL
COST IN U.S. DOLLARS	ENTRY	SESSION
FULL ESTIMATED COST	4.31	76.19
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
CA SUBSCRIBER PRICE	ENTRY	SESSION
	0.00	-0.82

FILE 'REGISTRY' ENTERED AT 08:12:15 ON 15 JUN 2009  
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Property values tagged with IC are from the ZIC/VINITI data file  
provided by InfoChem.

STRUCTURE FILE UPDATES: 14 JUN 2009 HIGHEST RN 1157585-76-6  
DICTIONARY FILE UPDATES: 14 JUN 2009 HIGHEST RN 1157585-76-6

New CAS Information Use Policies, enter HELP USAGETERMS for details.

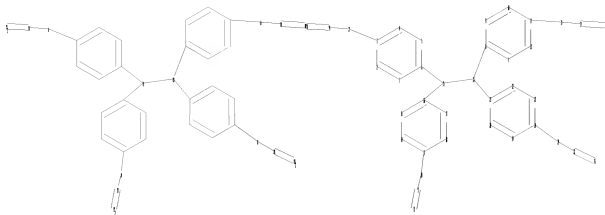
TSCA INFORMATION NOW CURRENT THROUGH January 9, 2009.

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and  
predicted properties as well as tags indicating availability of  
experimental property data in the original document. For information  
on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stdoc/properties.html>

=>  
Uploading C:\Program Files\STNEXP\Queries\10560815-5.str



```

chain nodes :
25 26 27 28 29 30 31 32 33 34 35 36 37 38
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
24
chain bonds :
3-27 6-25 8-26 11-30 13-28 16-25 21-26 24-29 25-26 27-34 28-33 29-32
30-31 31-35 32-36 33-37 34-38
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 13-14 13-18
14-15 15-16 16-17 17-18 19-20 19-24 20-21 21-22 22-23 23-24
exact/norm bonds :
3-27 11-30 13-28 24-29 27-34 28-33 29-32 30-31
exact bonds :
6-25 8-26 16-25 21-26 25-26 31-35 32-36 33-37 34-38
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 13-14 13-18
14-15 15-16 16-17 17-18 19-20 19-24 20-21 21-22 22-23 23-24

```

```

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom
20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 25:CLASS 26:CLASS 27:CLASS 28:CLASS
29:CLASS 30:CLASS 31:CLASS 32:CLASS 33:CLASS 34:CLASS 35:CLASS 36:CLASS
37:CLASS 38:CLASS

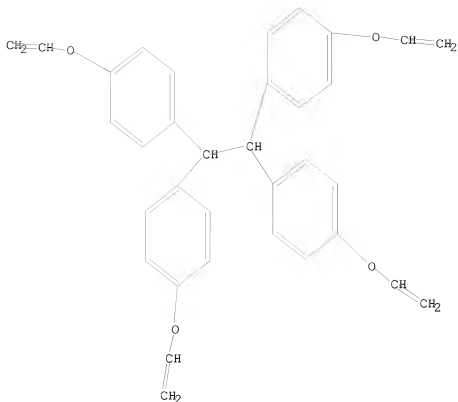
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L7 STRUCTURE UPLOADED

=> d 17

L7 HAS NO ANSWERS

L7 STR



Structure attributes must be viewed using STN Express query preparation.

```
=> s l7 exact full
FULL SEARCH INITIATED 08:12:53 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 1 TO ITERATE
```

```
100.0% PROCESSED          1 ITERATIONS          1 ANSWERS
SEARCH TIME: 00.00.01
```

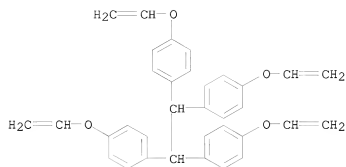
```
L8          1 SEA EXA FUL L7
```

```
=> DIS L8 1 FIDE
```

```
L8  ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2009 ACS on STN
RN  830351-53-6  REGISTRY
ED  Entered STN:  14 Feb 2005
CN  Benzene, 1,1',1'',1'''-(1,2-ethanediylidene)tetrakis[4-(ethenoxy)- (9CI)
    (CA INDEX NAME)
MF  C34 H30 O4
CI  COM
SR  CA
```

Ring System Data

Elemental	Elemental	Size of	Ring System	Ring	RID
Analysis	Sequence	the Rings	Formula	Identifier	Occurrence
EA	ES	SZ	RF	RID	Count
C6	IC6	16	IC6	146.150.18	14



# Predicted Properties (PPROP)

PROPERTY (CODE)	VALUE	CONDITION	NOTE
Bioconc. Factor (BCF)	1000000.0	pH 1 25 deg C	(1)
Bioconc. Factor (BCF)	1000000.0	pH 2 25 deg C	(1)
Bioconc. Factor (BCF)	1000000.0	pH 3 25 deg C	(1)
Bioconc. Factor (BCF)	1000000.0	pH 4 25 deg C	(1)
Bioconc. Factor (BCF)	1000000.0	pH 5 25 deg C	(1)
Bioconc. Factor (BCF)	1000000.0	pH 6 25 deg C	(1)
Bioconc. Factor (BCF)	1000000.0	pH 7 25 deg C	(1)
Bioconc. Factor (BCF)	1000000.0	pH 8 25 deg C	(1)
Bioconc. Factor (BCF)	1000000.0	pH 9 25 deg C	(1)
Bioconc. Factor (BCF)	1000000.0	pH 10 25 deg C	(1)
Boiling Point (BP)	1557.0+/-50.0 deg C	760 Torr	(1)
Density (DEN)	1.109+/-0.06 g/cm**3	120 deg C	(1)
		760 Torr	
Enthalpy of Vap. (HVAP)	80.74+/-3.0 kJ/mol	760 Torr	(1)
Flash Point (FP)	84.3+/-36.9 deg C		(1)
Freely Rotatable Bonds (FRB)	13		(1)
H acceptors (HAC)	4		(1)
H donors (HD)	0		(1)
Hydrogen Donors/Acceptors Sum (HDAS)	4		(1)
Koc (KOC)	10000000.0	pH 1 25 deg C	(1)
Koc (KOC)	10000000.0	pH 2 25 deg C	(1)
Koc (KOC)	10000000.0	pH 3 25 deg C	(1)
Koc (KOC)	10000000.0	pH 4 25 deg C	(1)
Koc (KOC)	10000000.0	pH 5 25 deg C	(1)
Koc (KOC)	10000000.0	pH 6 25 deg C	(1)
Koc (KOC)	10000000.0	pH 7 25 deg C	(1)
Koc (KOC)	10000000.0	pH 8 25 deg C	(1)
Koc (KOC)	10000000.0	pH 9 25 deg C	(1)
Koc (KOC)	10000000.0	pH 10 25 deg C	(1)
LOGD (LOGD)	10.92	pH 1 25 deg C	(1)
LOGD (LOGD)	10.92	pH 2 25 deg C	(1)
LOGD (LOGD)	10.92	pH 3 25 deg C	(1)
LOGD (LOGD)	10.92	pH 4 25 deg C	(1)
LOGD (LOGD)	10.92	pH 5 25 deg C	(1)
LOGD (LOGD)	10.92	pH 6 25 deg C	(1)
LOGD (LOGD)	10.92	pH 7 25 deg C	(1)
LOGD (LOGD)	10.92	pH 8 25 deg C	(1)
LOGD (LOGD)	10.92	pH 9 25 deg C	(1)

LOGD (LOGD)	10.92	pH 10 25 deg C	(1)
LOGP (LOGP)	10.921+/-0.463	25 deg C	(1)
Mass Intrinsic Solubility (ISLB.MASS)	0.00000060 g/L	25 deg C	(1)
Mass Solubility (SLB.MASS)	0.00000060 g/L	pH 1 25 deg C	(1)
Mass Solubility (SLB.MASS)	0.00000060 g/L	pH 2 25 deg C	(1)
Mass Solubility (SLB.MASS)	0.00000060 g/L	pH 3 25 deg C	(1)
Mass Solubility (SLB.MASS)	0.00000060 g/L	pH 4 25 deg C	(1)
Mass Solubility (SLB.MASS)	0.00000060 g/L	pH 5 25 deg C	(1)
Mass Solubility (SLB.MASS)	0.00000060 g/L	pH 6 25 deg C	(1)
Mass Solubility (SLB.MASS)	0.00000060 g/L	pH 7 25 deg C	(1)
Mass Solubility (SLB.MASS)	0.00000060 g/L	pH 8 25 deg C	(1)
Mass Solubility (SLB.MASS)	0.00000060 g/L	pH 9 25 deg C	(1)
Mass Solubility (SLB.MASS)	0.00000060 g/L	pH 10 25 deg C	(1)
Mass Solubility (SLB.MASS)	0.00000060 g/L	Unbuffered Water	(1)
		pH 7.00	
		25 deg C	
Molar Intrinsic Solubility (ISLB.MOL)	0.0000000012 mol/L	25 deg C	(1)
Molar Solubility (SLB.MOL)	0.0000000012 mol/L	pH 1 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.0000000012 mol/L	pH 2 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.0000000012 mol/L	pH 3 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.0000000012 mol/L	pH 4 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.0000000012 mol/L	pH 5 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.0000000012 mol/L	pH 6 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.0000000012 mol/L	pH 7 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.0000000012 mol/L	pH 8 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.0000000012 mol/L	pH 9 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.0000000012 mol/L	pH 10 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.0000000012 mol/L	Unbuffered Water	(1)
		pH 7.00	
		25 deg C	
Molar Volume (MVOL)	453.0+/-3.0 cm**3/mol	20 deg C	(1)
		760 Torr	
Molecular Weight (MW)	502.60		(1)
Polar Surface Area (PSA)	36.92 A**2		(1)
Vapor Pressure (VP)	7.17E-12 Torr	25 deg C	(1)

(1) Calculated using Advanced Chemistry Development (ACD/Labs) Software V9.04  
((C) 1994-2009 ACD/Labs)

See HELP PROPERTIES for information about property data sources in REGISTRY.

=> file caplus		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	67.35	143.54
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-0.82

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FILE COVERS 1907 - 15 Jun 2009 VOL 150 ISS 25  
FILE LAST UPDATED: 14 Jun 2009 (20090614/ED)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2009  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2009

CAPLUS now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l8

L9 0 L8

=> d his

(FILE 'HOME' ENTERED AT 07:49:23 ON 15 JUN 2009)

FILE 'REGISTRY' ENTERED AT 07:49:43 ON 15 JUN 2009

L1 STRUCTURE UPLOADED

L2 0 S L1 EXACT SAM

L3 0 S L1 SSS SAM

L4 1 S L1 EXACT FULL

FILE 'CAPLUS' ENTERED AT 07:51:46 ON 15 JUN 2009

E NOVOLAC+ALL/CT

L5 0 S L4 AND NOVOLAC

L6 1 S L4

FILE 'REGISTRY' ENTERED AT 07:58:35 ON 15 JUN 2009

FILE 'REGISTRY' ENTERED AT 08:12:15 ON 15 JUN 2009

L7 STRUCTURE UPLOADED

L8 1 S L7 EXACT FULL

FILE 'CAPLUS' ENTERED AT 08:13:30 ON 15 JUN 2009

L9 0 S L8

=> logoff hold

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION

FULL ESTIMATED COST

0.50	144.04
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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION

CA SUBSCRIBER PRICE

0.00	-0.82
------	-------

SESSION WILL BE HELD FOR 120 MINUTES

STN INTERNATIONAL SESSION SUSPENDED AT 08:14:08 ON 15 JUN 2009

Connecting via Winsock to STN

Welcome to STN International! Enter x:X

LOGINID:SSPTAJEU1796

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

NEWS 1 Web Page for STN Seminar Schedule - N. America  
NEWS 2 DEC 01 ChemPort single article sales feature unavailable  
NEWS 3 APR 03 CAS coverage of exemplified prophetic substances  
enhanced  
NEWS 4 APR 07 STN is raising the limits on saved answers  
NEWS 5 APR 24 CA/Caplus now has more comprehensive patent assignee  
information  
NEWS 6 APR 26 USPATFULL and USPAT2 enhanced with patent  
assignment/reassignment information  
NEWS 7 APR 28 CAS patent authority coverage expanded  
NEWS 8 APR 28 ENCOMPLIT/ENCOMPLIT2 search fields enhanced  
NEWS 9 APR 28 Limits doubled for structure searching in CAS  
REGISTRY  
NEWS 10 MAY 08 STN Express, Version 8.4, now available  
NEWS 11 MAY 11 STN on the Web enhanced  
NEWS 12 MAY 11 BEILSTEIN substance information now available on  
STN Easy  
NEWS 13 MAY 14 DGENE, PCTGEN and USGENE enhanced with increased  
limits for exact sequence match searches and  
introduction of free HIT display format  
NEWS 14 MAY 15 INPADOCDB and INPAFAMDB enhanced with Chinese legal  
status data  
NEWS 15 MAY 28 CAS databases on STN enhanced with NANO super role in  
records back to 1992  
NEWS 16 JUN 01 CAS REGISTRY Source of Registration (SR) searching  
enhanced on STN  
  
NEWS EXPRESS MAY 26 09 CURRENT WINDOWS VERSION IS V8.4,  
AND CURRENT DISCOVER FILE IS DATED 06 APRIL 2009.  
  
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FILE 'HOME' ENTERED AT 07:59:38 ON 23 JUN 2009

=> file reg  
COST IN U.S. DOLLARS  
FULL ESTIMATED COST

SINCE FILE	TOTAL
ENTRY	SESSION
0.22	0.22

FILE 'REGISTRY' ENTERED AT 07:59:54 ON 23 JUN 2009  
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STRUCTURE FILE UPDATES: 22 JUN 2009 HIGHEST RN 1159446-15-7  
DICTIONARY FILE UPDATES: 22 JUN 2009 HIGHEST RN 1159446-15-7

New CAS Information Use Policies, enter HELP USAGETERMS for details.

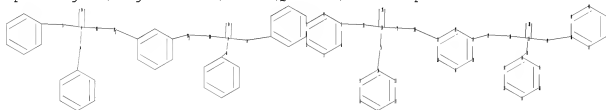
TSCA INFORMATION NOW CURRENT THROUGH January 9, 2009.

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and  
predicted properties as well as tags indicating availability of  
experimental property data in the original document. For information  
on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=>  
Uploading C:\Program Files\STNEXP\Queries\10560815-p.str



chain nodes :  
13 14 15 16 17 18 25 26 27 28 29 30  
ring nodes :  
1 2 3 4 5 6 7 8 9 10 11 12 19 20 21 22 23 24 31 32 33 34 35  
36 37 38 39 40 41 42  
chain bonds :  
5-13 10-15 13-14 14-15 14-16 14-17 17-18 18-21 23-25 25-26 26-27 27-28  
27-29 27-30 29-38 30-34  
ring bonds :  
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 19-20 19-24  
20-21 21-22 22-23 23-24 31-32 31-36 32-33 33-34 34-35 35-36 37-38 37-42  
38-39 39-40 40-41 41-42



exact/norm bonds :  
 5-13 10-15 13-14 14-15 14-16 14-17 26-27 27-28 27-29 27-30 29-38 30-34  
 exact bonds :  
 17-18 18-21 23-25 25-26  
 normalized bonds :  
 1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 19-20 19-24  
 20-21 21-22 22-23 23-24 31-32 31-36 32-33 33-34 34-35 35-36 37-38 37-42  
 38-39 39-40 40-41 41-42

Match level :

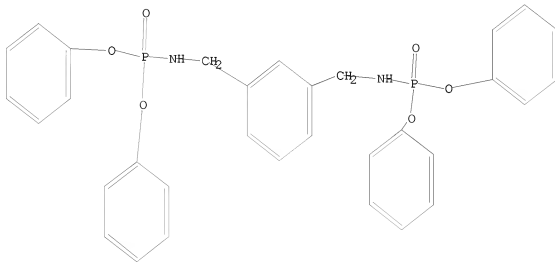
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom  
 11:Atom 12:Atom 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS  
 19:Atom 20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 25:CLASS 26:CLASS 27:CLASS  
 28:CLASS 29:CLASS 30:CLASS 31:Atom 32:Atom 33:Atom 34:Atom 35:Atom 36:Atom  
 37:Atom 38:Atom 39:Atom 40:Atom 41:Atom 42:Atom

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1 exact full

FULL SEARCH INITIATED 08:00:26 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 4 TO ITERATE

100.0% PROCESSED 4 ITERATIONS

1 ANSWERS

SEARCH TIME: 00.00.01

L2 1 SEA EXA FUL L1

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

ENTRY

TOTAL

SESSION

FULL ESTIMATED COST

63.08

63.30

FILE 'CAPLUS' ENTERED AT 08:00:35 ON 23 JUN 2009  
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FILE COVERS 1907 - 23 Jun 2009 VOL 150 ISS 26  
FILE LAST UPDATED: 22 Jun 2009 (20090622/ED)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Apr 2009  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Apr 2009

Caplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

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This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> s l2 and photopolymerize
    6 L2
    93 PHOTOPOLYMERIZE
L3      0 L2 AND PHOTOPOLYMERIZE

=> s l2 and photopolymerizable
    6 L2
    10031 PHOTOPOLYMERIZABLE
L4      0 L2 AND PHOTOPOLYMERIZABLE

=> s l2 and ink
    6 L2
    104582 INK
L5      0 L2 AND INK

=> s l2 and curable
    6 L2
    58757 CURABLE
L6      1 L2 AND CURABLE

=> DIS L6 1 HIT IBIB IABS

L6  ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2009 ACS on STN
TI  curable vinyl ether curing compositions containing polyvalent
    phenolic compounds for cured products with low dielectric constant
IT  Fillers
    Fire-resistant materials
    Fireproofing agents
    (curable vinyl ether curing compns. containing polyvalent
```

phenolic compds. for cured products with low dielec. constant)

IT Laminated plastics, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (curable vinyl ether curing compns. containing polyvalent  
 phenolic compds. for cured products with low dielec. constant)

IT Polyethers, preparation  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM  
 (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (phenolic; curable vinyl ether curing compns. containing  
 polyvalent phenolic compds. for cured products with low dielec. constant)

IT Phenolic resins, preparation  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM  
 (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyether-; curable vinyl ether curing compns. containing  
 polyvalent phenolic compds. for cured products with low dielec. constant)

IT 60676-86-0  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (SO-E 5, Aerosil 200; curable vinyl ether curing compns.  
 containing polyvalent phenolic compds. for cured products with low dielec.  
 constant)

IT 830351-48-9P 830351-49-0P 830351-51-4P 830351-52-5P 830351-54-7P  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM  
 (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (curable vinyl ether curing compns. containing polyvalent  
 phenolic compds. for cured products with low dielec. constant)

IT 382596-16-9  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (fireproofing agent; curable vinyl ether curing compns.  
 containing polyvalent phenolic compds. for cured products with low dielec.  
 constant)

ACCESSION NUMBER: 2005:99568 CAPLUS  
 DOCUMENT NUMBER: 142:157023  
 TITLE: curable vinyl ether curing compositions  
 containing polyvalent phenolic compounds for cured  
 products with low dielectric constant

INVENTOR(S): Saito, Seiichi  
 PATENT ASSIGNEE(S): Asahi Denka Co., Ltd., Japan  
 SOURCE: PCT Int. Appl., 23 pp.  
 CODEN: PIXXD2

DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005010098	A1	20050203	WO 2004-JP10095	20040715
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
JP 2005154448	A	20050616	JP 2003-278953	20030724
EP 1650259	A1	20060426	EP 2004-747561	20040715
R: DE, FR, GB				
US 20060178454	A1	20060810	US 2005-560815	20051215

KR 2006038951	A	20060504	KR 2005-724945	20051226
PRIORITY APPLN. INFO.:			JP 2003-278953	A 20030724
			WO 2004-JP10095	W 20040715

ABSTRACT:

The composition, useful for laminates, especially, buildup laminates, comprises a polyvalent vinyl ether compound and a polyvalent phenolic compound. Thus, a composition comprised 1,4-cyclohexanedimethyl divinyl ether 100, PR 53194 (polyvalent phenolic compound) 62.1, Milex XLC-LL (polyvalent phenolic compound) 62.1, Aerosil 200 (silica) 12.4, SO-E 5 (spherical silica) 37.3, [1,3-phenylenebis(methylene)]bis(phosphoramidic acid) tetra-Ph ester 24.3, ethylene glycol Bu ether acetate 100 and 2-ethyl-4-methylimidazole 7.1 parts was mixed and cured, showing glass transition temperature 125°, specific dielec. constant (2GHz) 2.9 and absorption 0.25%.

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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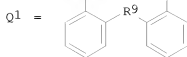
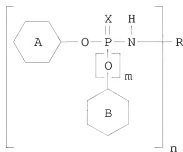
L7 6 L2

=> DIS L7 1 HIT IBIB IABS

L7 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN  
 IT 470-87-1 3848-51-9 382596-14-7 382596-15-8 382596-16-9  
 382596-17-0 856800-51-6 944807-05-0 944807-06-1 944807-07-2  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (thermal printing material containing phosphoric acid amide as color developer)

ACCESSION NUMBER: 2007:867474 CAPLUS  
 DOCUMENT NUMBER: 147:223309  
 TITLE: Thermal printing material containing phosphoric acid amide  
 INVENTOR(S): Shigeno, Koichi; Mori, Takahiro  
 PATENT ASSIGNEE(S): Adeka Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 22pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2007196631	A	20070809	JP 2006-20968	20060130
PRIORITY APPLN. INFO.:			JP 2006-20968	20060130
OTHER SOURCE(S):	MARPAT	147:223309		
GRAPHIC IMAGE:				



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# ABSTRACT:

The material has a heat-sensitive layer containing phosphoric acid amide I (A, B = Ph; combination of A and B = 1,8-naphthylene, 2,2'-biphenylene, Q1; these are substituted with halo, OH, hydroxycarbonyl amino, CN, nitro, alkyl, aryl, aralkyl; R9 = C1-4 alkylidene; X = O, S; m = 0-1; n = 1-3; R = residue having 1-3 primary amino groups) as a color developer. The material shows high sensitivity and storage stability.

=> DIS L7 2 HIT IBIB IABS

L7 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN

IT 382596-16-9

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(fireproofing agents; epoxy resin compns. containing phosphoryl amides for prepregs resistant to desmear process)

ACCESSION NUMBER: 2005:1285094 CAPLUS

DOCUMENT NUMBER: 144:7606

TITLE: Epoxy resin compositions maintaining physical properties after desmear process

INVENTOR(S): Mori, Takahiro; Fukuda, Yoshihiro; Takahata, Yoshinori; Hirakawa, Setsuko; Shinozuka, Toyoshi; Murata, Kiyoshi; Saito, Seiichi

PATENT ASSIGNEE(S): Asahi Denka Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005336426	A	20051208	JP 2004-160797	20040531
PRIORITY APPLN. INFO.:			JP 2004-160797	20040531
OTHER SOURCE(S):	MARPAT 144:7606			

# ABSTRACT:

The compns. comprise epoxy resins GOR1C6H3Q(GOR1C6H2Q)nC6H3R1OG (G = glycidyl; Q = dicyclopentadienediyl, CH2-p-C6H4-p-C6H4; R1 = H, C1-12 alkyl; n = 0-100), phenolic resins (OH)R3C6H3Q[(OH)R3C6H2Q]sC6H3R3OH (Q, R3 = the same as above; s = 0-100), and phosphoric amides. The compns. may further contain butyral resins (of degree of butylation 60-90%) 2-10, silica 3-10, and alumina 3-10%. Build-up prepreg laminates for circuit boards, employing the compns. are

further claimed. Thus, a composition of HP 7200 (dicyclopentadiene-PhOH condensate) 8.54, HP 4032 (1,6-naphthalene diglycidyl ether) 12.81, MEH 7851 [bis(methoxymethyl)biphenyl-phenol condensate] 14.11, PR 50731 (curing agent) 4.73, 5000A (vinyl butyral resin) 2.14, Admatex SO E5 (silica) 4.26, Cl 303 (alumina) 4.26, (PhO)2PONHCH2C6H4-m-CH2NHPO(OPh)2 (Ph = phenyl) 1.98, and 2-phenyl-4,5-bis(hydroxymethyl)imidazole 0.48 part was kneaded, pasted on a glass, baked, immersed in MEK, aqueous permanganate, and alkali bath sequentially at room temperature, washed with water, and dried to give a specimen showing Tg 155°, weight loss 0.49 mg/cm2, no cracks, and peeling resistance 1.4 kg/cm.

=> DIS L7 3 HIT IBIB IABS

L7 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN

IT 382596-16-9

RL: MOA (Modifier or additive use); USES (Uses)

(fireproofing agent; curable vinyl ether curing compns. containing polyvalent phenolic compds. for cured products with low dielec. constant)

ACCESSION NUMBER: 2005:99568 CAPLUS

DOCUMENT NUMBER: 142:157023

TITLE: curable vinyl ether curing compositions containing polyvalent phenolic compounds for cured products with low dielectric constant

INVENTOR(S): Saito, Seiichi

PATENT ASSIGNEE(S): Asahi Denka Co., Ltd., Japan

SOURCE: PCI Int. Appl., 23 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005010098	A1	20050203	WO 2004-JP10095	20040715
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TG, UG, ZM, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
JP 2005154448	A	20050616	JP 2003-278953	20030724
EP 1650259	A1	20060426	EP 2004-747561	20040715
R: DE, FR, GB				
US 20060178454	A1	20060810	US 2005-560815	20051215
KR 2006038951	A	20060504	KR 2005-724945	20051226
PRIORITY APPLN. INFO.:			JP 2003-278953	A 20030724
			WO 2004-JP10095	W 20040715

# ABSTRACT:

The composition, useful for laminates, especially, buildup laminates, comprises a polyvalent vinyl ether compound and a polyvalent phenolic compound. Thus, a composition comprised 1,4-cyclohexanedimethyl divinyl ether 100, PR 53194 (polyvalent phenolic compound) 62.1, Millex XLC-LL (polyvalent phenolic compound) 62.1, Aerosil 200 (silica) 12.4, SO-E 5 (spherical silica) 37.3, [1,3-phenylenebis(methylene)]bis(phosphoramidic acid) tetra-Ph ester 24.3,

ethylene glycol Bu ether acetate 100 and 2-ethyl-4-methylimidazole 7.1 parts was mixed and cured, showing glass transition temperature 125°, specific dielec. constant (2GHz) 2.9 and absorption 0.25%.

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> DIS L7 4 HIT IBIB IABS

L7 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN

IT 382596-16-9P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (bis(diphenylphosphorylamidomethyl)benzenes as fireproofing agents for thermoplastic compns. and fibers)

ACCESSION NUMBER: 2004:159468 CAPLUS

DOCUMENT NUMBER: 140:183101

TITLE: Fire-resistant thermoplastic compositions with good light and heat resistance, and their fibers

INVENTOR(S): Masuda, Takeshi; Yokochi, Atsushi; Hino, Satoru; Ozaki, Akiko

PATENT ASSIGNEE(S): Shikoku Chemicals Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
JP 2004059843	A	20040226	JP 2002-222954	20020731
JP 4040926	B2	20080130		
PRIORITY APPLN. INFO.:			JP 2002-222954	20020731

OTHER SOURCE(S): MARPAT 140:183101

ABSTRACT:

The compns. contain 1,3-bis(diphenylphosphorylamidomethyl)benzenes bearing R1 and R2 on each Ph group (I; R1, R2 = H, C1-4 alkyl) as fireproofing agents in addition to thermoplastics. Thus, a composition containing 100 parts PET and 10 parts I

(R1 = R2 = H) was injection-molded to give a test piece showing fire resistance (UL 94 test) V-0 and no discoloration after Xe irradiation for 50 h. The composition

was spun to give a fiber showing O index (JIS K 7201) 29%.

=> DIS L7 5 HIT IBIB IABS

L7 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN

IT 124784-27-6 382596-16-9

RL: TEM (Technical or engineered material use); USES (Uses) (fine Al borate whisker-containing epoxy resin compns. for cured products with uniformly linear expansion for printed circuit boards)

ACCESSION NUMBER: 2003:1007059 CAPLUS

DOCUMENT NUMBER: 140:43153

TITLE: Epoxy resin compositions forming cured products with uniformly linear expansion coefficient

INVENTOR(S): Saito, Seiichi; Fukuda, Yoshihiro; Mori, Takahiro; Takahata, Yoshinori

PATENT ASSIGNEE(S): Asahi Denka Co., Ltd., Japan

SOURCE: PCT Int. Appl., 22 pp.  
 DOCUMENT TYPE: CODEN: PIXXD2  
 LANGUAGE: Patent  
 FAMILY ACC. NUM. COUNT: Japanese  
 PATENT INFORMATION: 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003106559	A1	20031224	WO 2003-JP7216	20030606
W: CN, KR, US				
JP 2004018617	A	20040122	JP 2002-173650	20020614
JP 4259817	B2	20090430		
CN 1662601	A	20050831	CN 2003-813827	20030606
CN 1324076	C	20070704		
US 20050176854	A1	20050811	US 2004-518008	20041214
US 7294660	B2	20071113		
PRIORITY APPLN. INFO.:			JP 2002-173650	A 20020614
			WO 2003-JP7216	W 20030606

# ABSTRACT:

Title compns., useful for printed circuit boards, contain 100 parts epoxy resins and 1-800 parts Al borate whiskers (ABW) with average diameter of  $\leq 0.25$   $\mu\text{m}$ . A composition comprising 20, 2,2-bis(3,4-epoxycyclohexyl)propane 1,6-naphthalenediol diglycidyl ether 70, carboxy-terminated nitrile rubber bisphenol A diglycidyl ether ester 10, PR 53194 38.4, Milex XLC-LL 38.4, 0.15- $\mu\text{m}$  ABW 39.2, Al(OH)<sub>3</sub> 14.7, SiO<sub>2</sub> 9.8, 1,3-phenylenebismethylene bis(tetra-Ph phosphoramidate) 19.2, an imidazole 4.5, and a glycol ether acetate 259.7 parts showed viscosity of 700 cPs and was spread on a treated Al plate, dried, and baked to form a cured product with JIS C 6481 peeling strength 1.2 kg/cm, UL94 test V-0, and ratio of linear expansion coefficient in X to Y direction of 0.93.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> DIS L7 6 HIT IBIB IABS

L7 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN  
 IT 470-87-1 382596-14-7 382596-15-8 382596-16-9 382596-17-0  
 RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)  
 (fireproofing agents; phosphoric amide-fireproofed halogen-free epoxy resin compns. showing good mech. strength)

ACCESSION NUMBER: 2001:932557 CAPLUS  
 DOCUMENT NUMBER: 136:54631  
 TITLE: Halogen-free epoxy resin compositions fireproofed by phosphoric amides  
 INVENTOR(S): Saito, Seiichi; Mori, Takahiro  
 PATENT ASSIGNEE(S): Asahi Denka Kogyo K. K., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.  
 CODEN: JKXXAF

DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001354836	A	20011225	JP 2000-177676	20000614
PRIORITY APPLN. INFO.:			JP 2000-177676	20000614
OTHER SOURCE(S):	MARPAT 136:54631			
GRAPHIC IMAGE:				



\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

ABSTRACT:

The compns., possessing high Tg and offering moldings with high mech. strength, contain phosphoric amides represented by (i) I [A, B = R1R2R3C6H2 (R1-3 = H, OH, hydroxycarbonyl, C1-5 alkyl) or o-phenylene, Q1, Q2, or Q3 (R4 = C1-4 alkylidene) as combined form; X = O, S; m = 0, 1; n = 1-3; R = 1-3-primary amino-bearing group excluding melamine], (ii) (R1R2R3C6H2O)2P(:O)NHR5C6H4(ZC6H4)1R6NHP(:O)(OC6H2R1R2R3)2 (R1-3 = the same definition as above; R5, R6 = single bond, C1-4 alkylene; Z = single bond, O, S, sulfonyl, ester, amide, C1-4 alkylidene, condensed ring; l = 0, 1), or (iii) Q2P(:O)NHCH2C6H4CH2NHP(:O)Q2 (Q = phenoxy). The compns. further containing silica, rubber, and novolak-type hardeners are also claimed. The compns. are useful for prepregs. Thus, a composition of bisphenol A epoxy resin 40, carboxylated NBR-bisphenol A diglycidyl ether adduct 20, 2,2-bis(3,4-epoxycyclohexyl)propane 40, II 40, XLC-LL (benzene-formaldehyde-phenol condensate) 18.8, PR 53194 (phenolic novolak) 18.8, ethylene glycol Bu ether acetate 80, 2E4MZ 3.5 parts offered a cured product showing Tg 179°, tensile strength 85 MPa, elongation 13%, and UL 94 fire resistance rating V0.

=> d his

(FILE 'HOME' ENTERED AT 07:59:38 ON 23 JUN 2009)

FILE 'REGISTRY' ENTERED AT 07:59:54 ON 23 JUN 2009

L1 STRUCTURE UPLOADED  
L2 1 S L1 EXACT FULL

FILE 'CAPLUS' ENTERED AT 08:00:35 ON 23 JUN 2009

L3 0 S L2 AND PHOTOPOLYMERIZE  
L4 0 S L2 AND PHOTOPOLYMERIZABLE  
L5 0 S L2 AND INK  
L6 1 S L2 AND CURABLE  
L7 6 S L2

=> logoff hold

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	35.62	98.92
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-5.74	-5.74

SESSION WILL BE HELD FOR 120 MINUTES  
STN INTERNATIONAL SESSION SUSPENDED AT 08:03:58 ON 23 JUN 2009